

The Week That Was: 2013-08-24 (August 24, 2013)

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The Science and Environmental Policy Project

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Quote of the Week: *With four parameters I can fit an elephant, and with five I can make him wiggle his trunk.* Attributed to John von Neumann by Enrico Fermi, as quoted by Freeman Dyson in "A meeting with Enrico Fermi" in Nature 427 (22 January 2004) p. 297

http://en.wikiquote.org/wiki/John_von_Neumann

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Number of the Week: 8.8% v. 155.8%

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THIS WEEK:

By Ken Haapala, Executive Vice President, Science and Environmental Policy Project (SEPP)

Parameters: The quote of the week illustrates what is wrong with the entire process of attempting to assess the causes of climate change as it is practiced by governments and the UN Intergovernmental Panel on Climate Change. In general, the more parameters, factors that vary, a model has that are specified for the model, the greater is the uncertainty within the model. The Summary for Policymakers of IPCC's Fourth Assessment Report 2007 identified nine parameters for Global Mean Radiative Forcings, only one, solar irradiance, being natural. The ranges of error are large, and in some cases it is uncertain if the parameter amplifies or reduces warming caused by increasing carbon dioxide (CO₂) concentrations in the atmosphere from human emissions.

According to reports, rather than attempting to determine the values of excess parameters external of the models, model builders are adding more parameters to the models. These actions evoke the images from a famous scene in Walt Disney's cartoon movie, *Fantasia* – dancing pink elephants. Please see links under Challenging the Orthodoxy.

The 95% Certainty: The scientists preparing the Summary for Policymakers (SPM) for the IPCC's Fifth Assessment Report are leaking to a largely favorable press that they are 95% confident that humans caused the late 20th century warming. This is critical to the claim that human emissions of CO₂ and other greenhouse gases are causing Catastrophic Anthropogenic Global Warming (CAGW).

The figure is scientifically meaningless. A statistical distribution can be calculated over the results from the some 73 global climate models, but the models have never been validated and only one valid model would have been sufficient. As discussed above, the models have significant, unknown, internal uncertainty. Further, CO₂ emissions do not explain the significant warming of the first part of the 20th century, the current pause in warming of at least a decade (in the atmosphere and at least 15 years on the surface) and the regional nature of the of the warming, which is occurring in the northern part of the Northern Hemisphere with little warming elsewhere.

Physicist Luboš Motl is unimpressed. He writes: "Even if the figure 95% were credible, calculated, and replaced by a much higher figure, the statement we have "learned" is completely unspectacular, pretty much inconsequential, and unworthy of spending another dollar." He writes that the number is pulled out of the air, 95% is painfully low, and draws an analogy with what is required in particle physics.

After the IPCC scientists are finished, the SPM will be reviewed by government representatives to determine if it is acceptable before it is published. The review will take place in late September. That prompts the question, why the leaks? Do these scientists think they can intimidate the governments of China, India, Russia, Brazil, and South Africa into accepting their highly questionable findings? They may be surprised. Please see links under The 95% Certainty.

New AGU: On the web site of Anthony Watts, Roger Pielke, Sr. writes of his experiences in attempting to have his dissent to the Statement on Climate Change of the American Geophysical Union (AGU) printed in the AGU flagship publication EOS. The authoritarian attitude of the new leadership of AGU is more fitting a military organization than a scientific society. Please see link under Suppressing Scientific Inquiry.

A Climate Change Statement: Last week's TWTW stated that the total number of science societies which requested membership review before publishing a statement on climate change was zero. Bob Carter, an editor of the reports by the Nongovernmental International Panel on Climate Change, quickly corrected TWTW. The Geological Society of Australia did publish a draft statement for membership review before adoption. The effort was headed by past president Brad Pillans and is certainly worth reading. Thankfully, TWTW stands corrected. Please see links under Seeking a Common Ground.

Courage: In a provocative essay entitled "Scientists and motivated reasoning" Judith Curry mentions some of her experiences for publically discussing the uncertainty in climate science and its models. It is an outstanding exposition on the need for, and perils of, advocating integrity in climate science. Curry is to be thanked for having the courage to follow the data rather than the crowd. Please see link under Suppressing Scientific Inquiry.

Extreme Weather: Roger Pielke, Jr. has posted his written responses to written questions from two Senators on the Environment and Public Works Committee following Pielke's testimony challenging the claims of increasing extreme weather events. The data does not support the claims. Apparently, Senator Sheldon Whitehouse from Rhode Island prefers the dogma to the data and asked Pielke to supply a full list of funding for his current research. No dirty oil or coal money here.

In a softball question, Senator David Vitter from Louisiana referenced a survey of corporate executives by Lloyd's of London about risks their business face. He asked Pielke why climate change was ranked # 32, behind piracy but ahead of space weather. Please see link under Seeking a Common Ground

Social Cost of Carbon: The paper by MIT Economist Robert Pindyck published by the National Bureau of Economic Research continues to provoke articles on the weakness of the calculations by government agencies of the Social Cost of Carbon, which is being used by various agencies to insist on government control in the manufacture of consumer goods, such as microwave ovens. There is every reason to anticipate the expansion of such controls.

Pindyck discusses what are called Integrated Assessment Models (IAM) and they have two major problems: 1) the sensitivity of the planet to increased concentrations of CO₂; and 2) the economic impact of higher temperatures. The former does not particularly concern Pindyck, but the latter does. He states that the three IAMs he investigated essentially plucked the economic impact of higher temperatures from air. He states that the estimates are not based on theory or data. Even

though he believes in the possibility of CAGW, he believes the models should not be used to estimate its effects. Among other reasons he states is that the models underestimate the possibility of catastrophe.

As stated above, global climate models have not established that the planet is particularly sensitive to increasing CO₂. All 73 global climate models tested are overestimating the warming of the atmosphere over the tropics.

The morass of models creates a dilemma on how to legally challenge the calculations of the social cost of carbon. During the oral arguments on the EPA Endangerment Finding the chief justice of the US Circuit Court of Appeals for the District of Columbia made it clear that he will not tolerate any challenge to EPA science and there is little question that the EPA will exploit the court's position to expand its power. Further, attorneys representing the EPA argued the models are valid. Herein may be a weakness.

However, the social cost of carbon cannot be estimated, or even logically evaluated, to any degree of confidence until there is a validated climate model predicting the increase in temperature from increasing atmospheric carbon dioxide. It may be possible to petition the court to have the EPA identify a validated climate model and explain how it was scientifically validated as well as demonstrate its predictive powers. How successfully did the model predict the current pause in temperature rise, how well did it predict the lack of significant warming over the tropics? The EPA has 19 US models from which to choose. Of course, a valid climate model does not exist. Such an approach may avoid the trap of arguing over the various economic damage models, which would only benefit the government agencies advocating the social cost of carbon. Please see links under Challenging the Orthodoxy.

New Technology? Covering a bit of history, Robert Bradely Jr, points out the fracturing of wells in the US started with using gun powder as early as 1808 in water wells and was used to fracture oil wells in the 1860s. Please see link under Oil and Natural Gas – the Future or the Past?

Covering Up Liberty: The cover of the National Geographic magazine shows the Statue of Liberty about one-half submerged by sea water. Using data from the tidal gage at the Battery, on Manhattan, about 1.7 miles away, Anthony Watts calculates it would take 23,500 years before this would occur, assuming sea levels continue to rise as they have in the past centuries and a new Ice Age does not happen.

Its web site states: “The mission of the National Geographic Society is to inspire people to care about the planet.” The question is how gullible do the editors of National Geographic think their readers are? Please see links under Communicating Better to the Public – Make things up and <http://press.nationalgeographic.com/about-national-geographic/>

Additions and Corrections: Reader Christopher Game correctly points out a sentence used to describe the discussion paper by Hans von Storch and his team was awkward. TWTW followed the language of the paper.

A clearer description comes in an interview of Storch during which reporters from Der Spiegel asked if climate simulations show a long standstill in temperature change that is being observed now. Storch answered: “Yes, but only extremely rarely. At my institute, we analyzed how often such a 15-year stagnation in global warming occurred in the simulations. The answer was: in

under 2 percent of all the times we ran the simulation. In other words, over 98 percent of forecasts show CO2 emissions as high as we have had in recent years leading to more of a temperature increase.”

Storch further stated: “If things continue as they have been, in five years, at the latest, we will need to acknowledge that something is fundamentally wrong with our climate models. A 20-year pause in global warming does not occur in a single modeled scenario. But even today, we are finding it very difficult to reconcile actual temperature trends with our expectations.”

Although TWTW may disagree with Storch’s conclusions, his candor is refreshing. As always, TWTW appreciates readers who suggest Additions and Corrections. Please see link under Models v. Observations

Number of the Week: 8.8% v 155.8%. In its 2013 estimate of levelized costs for plants put into service in 2018, the US Energy Information Administration calculated the production and the costs for both on-shore wind and off-shore wind. The estimates are rough but illustrative. The on-shore production was estimated to be at 34% of nameplate capacity and the off-shore production was 37%. The total costs are \$86.60 per mega-watt hour and \$229.5 per mWh. One can realize an 8.8% increase in production by going off-shore and spending only 155.8% more! Is this a difficult decision? Please see link under Energy Issues – US.

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ARTICLES:

For the numbered articles below please see this week’s TWTW at: www.sepp.org. The articles are at the end of the pdf.

1. A Tale of Two Climate HockeySticks

By S. Fred Singer, American Thinker, Aug 20, 2013

http://www.americanthinker.com/2013/08/a_tale_of_two_climate_hockeysticks.html

2 'Perverse Effects'

How green subsidies often increase carbon emissions.

Editorial, WSJ, Aug 19, 2013 [H/t William Readdy]

<http://online.wsj.com/article/SB10001424127887324783204578621631632912450?mg=reno64-wsj.html?dsk=y>

3. Race for Resources: Warm to Investors, Greenland Opens Up

Prospectors Develop Projects to Mine Potential Bounty in Minerals

By James Areddy, WSJ, Aug 22, 2013

http://online.wsj.com/article/SB10001424127887324619504579028944070317778.html?mod=W_SJ_MIDDLENexttoWhatsNewsFifth

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NEWS YOU CAN USE:

Commentary: Is the Sun Rising?

Ten Year Anniversary of the Climate Change Paradigm Shift

By Howard Richman & Raymond Richman, American Thinker, Aug 21, 2013

http://www.americanthinker.com/2013/08/ten_year_anniversary_of_the_climate_change_paradigm_shift.html

[SEPP Comment: Paradigm shift is a bit much.]

Suppressing Scientific Inquiry

Limiting scientific debate: A change in the AGU policy on Presenting Alternative Scientific Viewpoints

By Roger Pielke Sr, WUWT, Aug 23, 2013

<http://wattsupwiththat.com/2013/08/23/a-change-in-the-agu-policy-on-presenting-alternative-scientific-viewpoints/>

Scientists and motivated reasoning

By Judith Curry, Climate Etc., Aug 20, 2013

<http://judithcurry.com/2013/08/20/scientists-and-motivated-reasoning/#more-12579>

Challenging the Orthodoxy

IPCC caught out with an old, known, and uncorrected error pending their new AR5 report

By Tony Thomas, WUWT, Aug 19, 2013

<http://wattsupwiththat.com/2013/08/19/ipcc-caught-with-an-old-uncorrected-error-in-new-ar5-report/>

Report Indicates IPCC Ignore Facts and Failed Predictions To Claim Better Results

By Tim Ball, A Different Perspective, Aug 18, 2013

<http://drtimball.com/2013/report-indicates-ipcc-ignore-facts-and-failed-predictions-to-claim-better-results-2/>

[SEPP Comment: Is it very likely, or virtually certain, that the actual scientific chapter will not present the science supporting the greater than 95% figure that is reported to be in the Summary for Policymakers?]

The Medieval Warm Period in the Arctic

By Craig Idso, WUWT, Aug 23, 2013

<http://wattsupwiththat.com/2013/08/23/the-medieval-warm-period-in-the-arctic/>

MIT Economist on Bogus Climate Damage Functions

By Robert Murphy, IER, Aug 21, 2013

<http://www.instituteforenergyresearch.org/2013/08/21/mit-economist-on-bogus-climate-damage-functions/>

Model mockery

By Lawrence Solomon, Financial Post, CA, Aug 22, 2013 [H/t WUWT]

<http://opinion.financialpost.com/2013/08/22/lawrence-solomon-model-mockery/>

Top economist, a true believer in global warming, proves predictions of catastrophe are meaningless.

Polar bears have not been harmed by sea ice declines in summer – the evidence

By Susan Crockford, Polar Bear Science, Aug 18, 2013

<http://polarbearscience.com/2013/08/18/polar-bears-have-not-been-harmed-by-sea-ice-declines-in-summer-the-evidence/>

The 95% Certainty

95 percent confidence: in HEP vs IPCC

By Luboš Motl, The Reference Frame, Aug 17, 2013

<http://motls.blogspot.com/2013/08/95-percent-confidence-in-hep-vs-ipcc.html#more>

The '95% certainty' is that the IPCC can't be trusted

By John McLean, Quadrant, Aug 23, 2013

<http://www.quadrant.org.au/blogs/doomed-planet/2013/08/the-95-certainty-is-that-the-ipcc-can-t-be-trusted>

When somebody hits you with that new 'IPCC is 95% certain' talking point on global warming, show them this

By Anthony Watts, WUWT, Aug 20, 2013

<http://wattsupwiththat.com/2013/08/20/when-somebody-hits-you-with-that-new-ipcc-is-95-certain-talking-point-show-them-this/>

The UN is 95% sure on AGW while unable to explain why there has been no warming over past 16 years

By Staff Writers, ICECAP, Aug 21, 2013

<http://icecap.us/index.php/go/joes-blog/the-un-is-95-sure-on-agw-while-unable-to-explain-why-there-has-been-no-warm/>

Climate Panel Cites Near Certainty on Warming

By Justin Gillis, NYT, Aug 19, 2013 [H/t Paul Sheridan]

<http://www.nytimes.com/2013/08/20/science/earth/extremely-likely-that-human-activity-is-driving-climate-change-panel-finds.html?src=me&ref=general&r=0>

Scientists nearly certain that humans have caused global warming

By Darryl Fears, Washington Post, Aug 20, 2013 [H/t Conrad Potemra]

http://www.washingtonpost.com/national/health-science/scientists-nearly-certain-that-humans-have-caused-global-warming/2013/08/20/d6e4a20a-09b8-11e3-b87c-476db8ac34cd_story.html

Defending the Orthodoxy

Leaked climate report: Ten nuggets worth noting

By Jason Samenow, Washington Post, Aug 20, 2013 [Ht Anne Debeil]

<http://www.washingtonpost.com/blogs/capital-weather-gang/wp/2013/08/20/leaked-climate-report-ten-nuggets-worth-noting/>

Scientists Turn to Melted Ice to Make Climate-Change Case

By Jim Efstathiou Jr, Bloomberg, Aug 20, 2013 [H/t Climate Depot]

<http://www.bloomberg.com/news/2013-08-19/scientists-turn-to-melted-ice-to-make-climate-change-case.html>

[SEPP Comment: Would the IPCC evade the issue of no surface warming for at least 15 years? Of course, use proxy data!]

European forests nearing carbon-saturation point

By Alister Doyle, Reuters, Aug 18, 2013 [H/t Clyde Spencer]

<http://news.msn.com/science-technology/european-forests-nearing-carbon-saturation-point>

Link to paper First signs of carbon sink saturation in European forest biomass

By Nabuurs, et al., Nature Climate Change Aug 18, 2013

<http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate1853.html>

[SEPP Comment: Time to start re-cycling the trees!]

Extreme weather, climate and the carbon cycle

By Staff Writers, Dresden, Germany (SPX), Aug 19, 2013

http://www.terraily.com/reports/Extreme_weather_climate_and_the_carbon_cycle_999.html

Separating Science From Spin on the Global-Warming 'Pause'

What's causing a temporary slowdown in planetary warming, and why should anyone worry that more warming is coming?

By Patrick Reis and Marina Koren, National Journal, Aug 21, 2013 [H/t WUWT]

<http://www.nationaljournal.com/energy/separating-science-from-spin-on-the-global-warming-pause-20130821>

[SEPP Comment: The excuse of the day.]

Questioning the Orthodoxy

German Meteorologists Ridiculing IPCC – PIK Science: “Climate Hysterics Are Back...Coming Out Of Their Caves”

By P Gosselin, No Tricks Zone, Aug 18, 2013

<http://notrickszone.com/2013/08/18/german-meteorologists-ridiculing-ipcc-pik-science-climate-hysterics-are-back-coming-out-of-their-caves/>

How global warming research is like pot research

By Robert Brown, WUWT, Aug 22, 2013

<http://wattsupwiththat.com/2013/08/22/how-global-warming-research-is-like-pot-research/>

[SEPP Comment: Amusing simile.]

The looming peril of global talling

By Mal Wedd, Quadrant, Aug 22, 2013

<http://www.quadrant.org.au/blogs/doomed-planet/2013/08/the-looming-peril-of-global-talling>

[SEPP Comment: Amusing take on claims such as the hottest decade every.]

Climate Reductio ad Absurdum

By Alan Caruba, Warning Signs, Aug 21, 2013

<http://factsnotfantasy.blogspot.com/2013/08/climate-reductio-ad-absurdum.html>

Lawmakers want answers on 'social cost of carbon' decision

By Ben Goad, The Hill, Aug 21, 2013

<http://thehill.com/blogs/regwatch/energyenvironment/318057-lawmakers-want-answers-on-social-cost-of-carbon-decision>

[SEPP Comment: The Federal agencies are incapable of producing a validated model that can predict the effects on carbon dioxide on climate. Yet, they claim they can calculate the costs of increased atmospheric carbon dioxide, the influence of which they cannot predict.]

Shocker: Global warming may simply be an artifact of clean air laws

By Anthony Watts, WUWT, Aug 19, 2013

<http://wattsupwiththat.com/2013/08/19/shocker-global-warming-may-simply-be-an-artifact-of-clean-air-laws/>

The day the Global Warming death spiral began

By Jo Nova, Her Blog, Aug 20, 2013

<http://joannenova.com.au/2013/08/the-day-the-global-warming-death-spiral-began/>

The Great Global Warming Con

Pointman's His Blog, Aug 23, 2013

<http://thepointman.wordpress.com/2013/08/23/the-great-global-warming-con/>

Up to our ears in Al Gore's 'climate change' snake oil

By Wesley Pruden, Washington Times, Aug 23, 2013

<http://www.washingtontimes.com/news/2013/aug/23/pruden-up-to-our-ears-in-snake-oil/#ixzz2cnKJvpP4>

Seeking a Common Ground

Climate Change Statement

Proposed for adoption, Submitted to members to review.

By Brad Pillans, Past President, tag (The Australian Geologist), Geological Society of Australia, Dec 2012 pp 6 & 7

http://www.gsa.org.au/pdfdocuments/publications/TAG_165%20TAG.pdf

Referenced paper: Trends, rhythms, and aberrations in global climate

By Zachos, et al, 2001 Science 292: p 686-693 (April 27, 2001)

http://www.essc.psu.edu/essc_web/seminars/spring2006/jan18/Zachosetal.pdf

Follow Up Q&A From Senate EPW

By Roger Pielke Jr., His Blog, Aug 21, 2013

<http://rogerpielkejr.blogspot.com/2013/08/follow-up-q-from-senate-epw.html>

On the Cloud Thermostat Hypothesis

By Roy Spencer, His Blog, Aug 22, 2013

<http://www.drroyspencer.com/2013/08/on-the-cloud-thermostat-hypothesis/>

Revisiting Wood's 1909 Greenhouse Box Experiment: Part I

By Roy Spencer, His Blog, Aug 23, 2013

<http://www.drroyspencer.com/2013/08/revisiting-woods-1909-greenhouse-box-experiment-part-i/>

[SEPP Comment: Yes, there is a greenhouse effect. The issue is, how significantly will adding atmospheric carbon dioxide increase it? Spencer points out a major flaw in an experiment that is cited to disprove a greenhouse effect.]

JC on NPR

By Judith Curry, Climate Etc., Aug 22, 2013

<http://judithcurry.com/2013/08/22/jc-on-npr/#more-12685>

[SEPP Comment: The National Public Radio theme: above all things let us avoid letting the public know about tremendous uncertainty in climate science.]

Proactionary principle

By Judith Curry, Climate Etc., Aug 19, 2013

<http://judithcurry.com/2013/08/19/proactionary-principle/>

Lowering Standards

IPCC Chooses Option No. 3

By Paul Knappenberger and Patrick Michaels, Cato, Aug 22, 2013

<http://www.cato.org/blog/ipcc-chooses-option-no-3>

Expanding the Orthodoxy

USGS moves to create climate change vulnerability database

By Zack Colman, The Hill, Aug 20, 2013

<http://thehill.com/blogs/e2-wire/e2-wire/317837-usgs-moves-to-create-climate-change-vulnerability-database>

[SEPP Comment: Will it include the dangers of global cooling?]

Questioning European Green

Times Leader: Protest vs Truth in the Battle of Balcombe

Editorial, The Times, via GWPF, Aug 19, 2013

<http://www.thegwpf.org/times-leader-protest-truth-battle-balcombe/>

Europe's Renewable Energy: The Law of Unintended Consequences

By Peter Glover, Energy Tribune, Aug 20, 2013

<http://www.energytribune.com/78844/europes-renewable-energy-the-law-of-unintended-consequences#sthash.bPY3G2b5.dpbs>

Fracking Will Cut Energy Bills, Says Poverty Chief

By Tim Webb, The Times, via GWPF, Aug 21, 2013

<http://www.thegwpf.org/fracking-cut-energy-bills-poverty-chief/>

Europe's Gas Power Plant Carnage Intensifies

By Sonal Patel, Power Mag, Aug 22, 2013

http://www.powermag.com/europes-gas-power-plant-carnage-intensifies/?hq_e=el&hq_m=2733090&hq_l=14&hq_v=5e660500d0

Questioning Green Elsewhere

The Greening And Un-Greening Of Genetically-Improved Food

By Larry Bell, Forbes, Aug 18, 2013

<http://www.forbes.com/sites/larrybell/2013/08/18/the-greening-and-un-greening-of-genetically-improved-food/>

[SEPP Comment: Creation of the green industry and its shameless attacks on the development of more bountiful and nutritious food.]

Forest-Interior Birds May be Benefiting from Harvested Clearings

By Staff Writers, Irvine PA (SPX), Aug 23, 2013

http://www.terraily.com/reports/Forest_interior_Birds_May_be_Benefiting_from_Harvested_Clearings_999.html

Green Energy is Part of the Past, not Fuel for the Future

By Viv Forbes, Carbon Sense, Aug 21, 2013

<http://carbon-sense.com/wp-content/uploads/2013/08/green-energy-folly.pdf>

[SEPP Comment: Begins with a description of life without fossil fuels.]

Green Jobs

More evidence that green jobs are illusory

By Andrew Montford, Bishop Hill, Aug 22, 2013

<http://bishophill.squarespace.com/blog/2013/8/22/more-evidence-that-green-jobs-are-illusory.html>

[SEPP Comment: The complete study is in German.]

Communicating Better to the Public – Exaggerate, or be Vague?

Coastal flood damage could soar to \$1tn a year by 2050

Guangzhou, Miami and New York at greatest risk as a result of climate change and population growth, study shows

By Mark Tran, Guardian, UK, Aug 20, 2013

<http://www.theguardian.com/global-development/2013/aug/20/coastal-flood-damage-2050>

Climate models predict hard times ahead for global food production

By Freya Roberts, The Carbon Brief, Aug 21, 2013

http://carbonbrief.org/blog/2013/08/climate-models-predict-hard-times-ahead-for-global-food-production/?utm_source=Weekly+Carbon+Briefing&utm_campaign=6780c9f0c6-Carbon+Brief+Weekly+18+7+137+18+2013&utm_medium=email&utm_term=0_3ff5ea836a-6780c9f0c6-215218249

Link to paper: Climate change impacts on global agriculture

By Calzadilla et al., Climate Change, September, 2013

<http://link.springer.com/article/10.1007%2Fs10584-013-0822-4>

[SEPP Comment: Temperature projections from extreme un-validated models.]

How shale fracking led to an Ohio town's first 100 earthquakes

By Staff Writers, London, UK (SPX), Aug 21, 2013

[http://www.energy-](http://www.energy-daily.com/reports/How+shale+fracking+led+to+an+Ohio+towns+first+100+earthquakes+999.html)

[daily.com/reports/How shale fracking led to an Ohio towns first 100 earthquakes 999.html](http://www.energy-daily.com/reports/How+shale+fracking+led+to+an+Ohio+towns+first+100+earthquakes+999.html)

[SEPP Comment: The minor earth quakes were caused by injection of waste water, not fracking. Why not by stop injection of wastewater?]

Task force: Coasts should prepare for rising seas

By David Caruso and Megan Barr, AP, Aug 19, 2013 [H/t Timothy Wise]

<http://news.yahoo.com/task-force-coasts-prepare-rising-seas-090507999.html>

[SEPP Comment: Sound advice, but be prepared for hyperbole from climate modelers. No evidence of increased frequency.]

Communicating Better to the Public – Make things up.

National Geographic's Junk Science: How long will it take for sea level rise to reach midway up the Statue of Liberty?

By Anthony Watts, WUWT, Aug 20, 2013

<http://wattsupwiththat.com/2013/08/20/national-geographics-junk-science-how-long-will-it-take-for-sea-level-rise-to-reach-midway-up-the-statue-of-liberty/>

Unraveling the mystery of 'Gasland' director Josh Fox's drilling lease

By Sean Higgins, Washington Examiner, Aug 21, 2013

http://washingtonexaminer.com/lots-of-hot-air-emitted-about-gasland/article/2534554?utm_source=Washington%20Examiner:%20Opinion%20Digest%20Reoccurring%20-%2008/22/2013&utm_medium=email&utm_campaign=Washington%20Examiner:%20Opinion%20Digest

Communicating Better to the Public – Go Personal.

Arctic sea ice and extreme weather

By Judith Curry, Climate Etc., Aug 21, 2013

<http://judithcurry.com/2013/08/21/arctic-sea-ice-and-weather/#more-12664>

[SEPP Comment: Sound advice from Curry to those who try to defend their work by going personal.]

The Genetic Fallacy: He Works For An Oil Company!

By William Briggs, His Blog, Aug 23, 2013

<http://wmbriggs.com/blog/?p=7763>

[SEPP Comment: A different term with good examples of the logical fallacy generally taught as “argumentum ad verecundiam” or transfer.]

Welcome to the Age of Denial

Op-Ed, By Adam Frank, NYT, Aug 21, 2013

http://www.nytimes.com/2013/08/22/opinion/welcome-to-the-age-of-denial.html?nl=todaysheadlines&emc=edit_th_20130822&r=1&

[SEPP Comment: Perhaps the good Mr. Frank should check the history of climate change that occurred before his birth, prior to lecturing us on the disaster of Lysenkoism. What are the fundamental issues in climate science that were decided scientifically decades ago? That climate change is real and occurring? It's been doing so without human help for hundreds of millions of years and will continue to do so long after we are gone.]

Models v. Observations

Climate Expert von Storch: Why Is Global Warming Stagnating?

Interview by Olaf Stampf and Gerald Traufetter, Trans. Ella Ornstein, Spiegel, Jun 30, 2013 [H/t Tom Burch]

<http://www.spiegel.de/international/world/interview-hans-von-storch-on-problems-with-climate-change-models-a-906721.html#js-article-comments-box-pager>

Von Storch on the models again

By Andrew Montford, Bishop Hill, Aug 23, 2013

<http://bishophill.squarespace.com/blog/2013/8/23/von-storch-on-the-models-again.html>

Measurement Issues

Available evidence: surface temperatures

By Steven Mosher, Climate, Etc., Aug 18, 2013

<http://judithcurry.com/2013/08/18/available-evidence-surface-temperatures/#more-12593>

[SEPP Comments: Explaining some of the updates from the Berkeley Earth Surface Temperature project.]

Changing Weather

2899 Record cold temps vs 667 record warm temps in U.S. — From July 24 to August 19

By Marc Morano, Climate Depot, Aug 21, 2013 [H/t William Raddy]

<http://www.climatedepot.com/2013/08/21/2899-record-cold-temps-vs-667-record-warm-temps-in-u-s/>

[SEPP Comment: Is Nature preparing for the next IPCC report?]

Extreme Temperatures in Oregon: The Seneca Oddity

By Cliff Mass, His Blog, Aug 20, 2013

<http://cliffmass.blogspot.com/2013/08/extreme-temperatures-in-oregon-seneca.html>

[SEPP Comment: On July 21, high, dry Seneca went from minus 30F (minus 34C) to 96F (35C) in one day.]

Changing Climate

Rapid cooling triggered Bronze-Age collapse and Greek Dark Age

By Robert Felix, Ice Age Now, May 20, 2013

<http://iceagenow.info/2013/05/rapid-cooling-triggered-bronze-age-collapse-greek-dark-age/>

Link to paper: The influence of climate change on the Late Bronze Age Collapse and the Greek Dark Ages

By Brandon Drake, Journal of Archaeological Science, Jan 26, 2013

[SEPP Comment: The suddenly fashionable paper discussed climate change, not the more specific climate cooling.]

Hindcasting climate shifts in the Pacific

Posted by Anthony Watts, WUWT, Aug 22, 2013

<http://wattsupwiththat.com/2013/08/22/hindcasting-climate-shifts-in-the-pacific/>

Link to paper: Hindcast of the 1976/77 and 1998/99 climate shifts in the Pacific

By Ding, et al., Journal of Climate,

<http://journals.ametsoc.org/doi/abs/10.1175/JCLI-D-12-00626.1>

Changing Seas

Did an ice sheet collapse 120,000 years ago pushing sea levels up to 9m higher than today?

By Jo Nova, Her Blog, Aug 19, 2013

<http://joannenova.com.au/2013/08/did-an-ice-sheet-collapse-120000-years-ago-pushing-sea-levels-up-to-9m-higher-than-today/>

Link to paper: Ice sheet collapse following a prolonged period of stable sea level during the last interglacial

By O'Leary, et al., Nature Geoscience, Jul 28, 2013

<http://www.nature.com/ngeo/journal/vaop/ncurrent/abs/ngeo1890.html>

[SEPP Comment: The proposed, dramatic rise in sea levels from natural causes is based on analysis of the coast line of Western Australia (WA). Temperature units are in C. Does such a dramatic increase in sea levels appear in the geological record elsewhere in the world?]

CLIMATE CHANGE made sea levels FALL in 2010 and 2011

All the water basically got dumped on Australia, say boffins

By Lewis Page, The Register, Aug 20, 2013 [H/t GWPF]

http://www.theregister.co.uk/2013/08/20/climate_change_made_sea_levels_fall_in_2010_and_2011/

[SEPP Comment: The hazards of extrapolating from short term data.]

Changing Cryosphere – Land / Sea Ice

Sea ice decline spurs the greening of the Arctic

By Staff Writers, Univ. of Alaska Geophysical Institute, Aug 21, 2013 [H/t WUWT]

<http://www.gi.alaska.edu/node/1667>

[SEPP Comment: Vegetation prefers non-frozen land to ice?]

UM Scientists Use New Approach to Reveal Function of Greenland's Ice Sheet

By Staff Writers, Missoula MT (SPX), Aug 22, 2013

http://www.terraily.com/reports/UM_Scientists_Use_New_Approach_to_Reveal_Function_of_Greenlands_Ice_Sheet_999.html

[Link to paper:](#) Basal Drainage System Response to Increasing Surface Melt on the Greenland Ice Sheet

By T. Meierbachtol, J. Harper, N. Humphrey, *Science*, Aug 16, 2013

<http://www.sciencemag.org/content/341/6147/777.short>

[SEPP Comment: The article states future warming will be enhanced over the Arctic. It does not mention that warming should be occurring over the tropics or the Antarctic and it is not.]

Open water at the North Pole

By Anthony Watts, WUWT, Aug 22, 2013

<http://wattsupwiththat.com/2013/08/22/open-water-at-the-north-pole-2/>

[SEPP Comment: Amusing bit of history.]

Changing Earth

Rising mountains, cooling oceans prompted spread of invasive species 450 million years ago

By Staff Writers, Athens OH (SPX), Aug 23, 2013

http://www.terraily.com/reports/Rising_mountains_cooling_oceans_prompted_spread_of_invasive_species_450_million_years_ago_999.html

Agriculture Issues & Fear of Famine

Genetic Engineering Produces A Genuine Monstrosity

By Henry I. Miller and Drew L. Kershen, Forbes, Aug 14, 2013 [H/t NCPA]

<http://www.forbes.com/sites/henrymiller/2013/08/14/activists-vindicated-genetic-engineering-produces-a-genuine-monstrosity/>

How will crops fare under climate change?

By Morgan Kelly, Princeton NJ (SPX), Aug 20, 2013

http://www.seeddaily.com/reports/How_will_crops_fare_under_climate_change_999.html

[SEPP Comment: Why not consult the reports of NIPCC and CO2 Science that are based on observations?]

Review of Recent Scientific Articles by NIPCC

For a full list of articles see www.NIPCCreport.org

Developmental Thermal Acclimation in a Species of Damsel fish

Reference: Grenchik, M.K., Donelson, J.M. and Munday, P.L. 2013. Evidence for developmental thermal acclimation in the damsel fish, *Pomacentrus moluccensis*. *Coral Reefs* 32: 85-90.

<http://nipccreport.org/articles/2013/aug/20aug2013a1.html>

Deficiencies of Modeled Temperature Extremes

Reference: Morak, S., Hegerl, G.C. and Christidis, N. 2013. Detectable changes in the frequency of temperature extremes. *Journal of Climate* 26: 1561-1574.

<http://nipccreport.org/articles/2013/aug/20aug2013a3.html>

Proper Modeling of the Seychelles Dome: Is Progress Being Made?

Reference: Nagura, M., Sasaki, W., Tozuka, T., Luo, J.-J., Behera, S.K. and Yamagata, T. 2013. Longitudinal biases in the Seychelles Dome simulated by 35 ocean-atmosphere coupled general circulation models. *Journal of Geophysical Research: Oceans* 118: 831-846.

<http://nipccreport.org/articles/2013/aug/21aug2013a2.html>

Impacts of Atmospheric CO₂ Enrichment on Salt-Stressed Barley

Reference: Perez-Lopez, U., Robredo, A., Miranda-Apodaca, J., Lacuesta, M., Muñoz-Rueda, A. and Mena-Petite, A. 2013. Carbon dioxide enrichment moderates salinity-induced effects on nitrogen acquisition and assimilation and their impact on growth in barley plants. *Environmental and Experimental Botany* 87: 148-158.

<http://nipccreport.org/articles/2013/aug/21aug2013a3.html>

The Political Games Continue

An inconvenient chill

Global-warming proponents will face a day of reckoning on Capitol Hill

Editorial, Washington Times, Aug, 23, 2013

<http://www.washingtontimes.com/news/2013/aug/23/editorial-an-inconvenient-chill/>

GAO to review how administration developed 'social cost' of carbon

By Julian Hattem, The Hill, Aug 19, 2013

<http://thehill.com/blogs/regwatch/legislation/317635-gao-to-review-how-administration-developed-social-cost-of-carbon->

House GOP readies September probe of Obama's climate plan

By Ben Geman, The Hill, Aug 22, 2013

<http://thehill.com/blogs/e2-wire/e2-wire/318215-house-gop-readies-september-probe-of-white-house-climate-plan>

Cap-and-Trade and Carbon Taxes

It's Not Gridlock That is Blocking a Carbon Tax, It's Science and Economics

By Jeff Reynolds, FreedomWorks,, Aug 23, 2013

<http://connect.freedomworks.org/news/view/392261?destination=node/392261>

Subsidies and Mandates Forever

Spanish players look to new markets

By Jason Deign, Wind Energy Update, Aug 19, 2013

http://social.windenergyupdate.com/uncategorised/spanish-players-look-new-markets?utm_source=newssite2008&utm_medium=newsletter&utm_content=2008&utm_campaign=WEU

[SEPP Comment: "One of the world's most vibrant wind and solar industry" cannot survive without subsidies.]

EPA and other Regulators on the March

How Lisa Jackson skirted Obama's good-government pledge

By Timothy Carney, Washington Examiner, Aug 17, 2013

http://washingtonexaminer.com/how-lisa-jackson-skirted-obamas-good-government-pledge/article/2534375?utm_source=Tim%20Carney%20Reoccurring%20%2008/18/2013&utm_medium=email&utm_campaign=Washington%20Examiner:%20Timothy%20P%20Carney

[SEPP Comment: The EPA considers itself exempt from certain laws and regulations.]

New evidence points to former EPA official pushing pre-emptive Pebble Mine veto

By M.D. Kittle, Washington Examiner, Aug 18, 2013

http://washingtonexaminer.com/new-evidence-points-to-former-epa-official-pushing-pre-emptive-pebble-mine-veto/article/2534383?utm_source=Washington%20Examiner:%20Politics%20Today%20Reoccurring%20-%2008/19/2013&utm_medium=email&utm_campaign=Washington%20Examiner:%20Politics%20Today

Tougher oversight needed for appliance standards program, internal watchdog says

By Zack Colman, The Hill, Aug 21, 2013

<http://thehill.com/blogs/e2-wire/e2-wire/318015-tougher-oversight-needed-for-appliance-standards-program-internal-watchdog-said>

Energy Issues – Non-US

German energy giants pull plug on conventional power

By Staff Writers, Mail & Guardian, Aug 18, 2013 [H/t GWPF]

<http://mg.co.za/article/2013-08-18-german-energy-giants-pull-plug-on-conventional-power>

Energy Strategy: Begin with Density

By Jerry Graf, Master Resource, Aug 21, 2013

<http://www.masterresource.org/2013/08/energy-strategy-begin-with-density/#more-26820>

[SEPP Comment: For electricity the first principle should be dispatchability, reliable delivery when needed.]

Will the New Luddites Destroy Britain's Industrial Future?

By Douglas Carswell, Telegraph, UK, via GWPF, Aug 18, 2013

<http://www.thegwpf.org/douglas-carswell-luddites-destroy-britains-industrial-future/>

Energy Issues -- US

ANNUAL ENERGY OUTLOOK 2013

Levelized Cost of New Generation Resources in the Annual Energy Outlook 2013

By Staff Writers, EIA, Jan 28, 2013

http://www.eia.gov/forecasts/aeo/electricity_generation.cfm

Washington's Control of Energy

Keystone XL Lobbying: Too Important to Fail Again

Pipeline supporters must argue from strength.

By Tom Harris, PJ Media, Aug 22, 2013

<http://pjmedia.com/blog/keystone-xl-lobbying-too-important-to-fail-again/?singlepage=true>

Will the Keystone XL Decision Be Based on Incorrect Assumptions?

By: Geoffrey Styles, Energy Tribune, Aug 21, 2013

<http://www.energytribune.com/78884/will-the-keystone-xl-decision-be-based-on-incorrect-assumptions#sthash.FncPZgFa.dpbs>

[SEPP Comment: A cynic may consider that the administration is intentionally delaying a decision in order to continue raising political contributions.]

Oil and Natural Gas – the Future or the Past?

The View from Marcellus

Fracking brings breathtaking economic and environmental benefits—at least to places that welcome it.

By James Panero, City, Summer 2013

http://www.city-journal.org/2013/23_3_fracking.html

[SEPP Comment: A long article on the change in prosperity from developing gas from dense shale, and its opponents. The author errs a bit on his history. George Mitchell developed the technique of using hydraulic fracturing, sand, and a small amount of chemicals to keep the fractures in dense shale open to allow the gas to flow. It was when Devon Energy bought Mitchell's company when precision horizontal drilling was employed.]

19th Century Frac Job: Oil Well Torpedoing (and a 'grievous' government monopoly)

By Robert Bradley Jr, Master Resource, Aug 20, 2013

<http://www.masterresource.org/2013/08/19th-century-frac-oilwell-torpedoing/#more-27153>

Another Peak Oil Fad, Part 1

By Donn Dears, Power for USA, Aug 20, 2013

<http://dddusmma.wordpress.com/2013/08/20/another-peak-oil-fad-part-1/>

Another Peak Oil Fad, Part 2

By Donn Dears, Power for USA, Aug 23, 2013

<http://dddusmma.wordpress.com/2013/08/23/another-peak-oil-fad-part-2/>

Shale grab in US stalls as falling values repel buyers

By Staff Writer, Bloomberg, Aug 19, 2013

<http://fuelfix.com/blog/2013/08/19/shale-grab-in-u-s-stalls-as-falling-values-repel-buyers/>

[SEPP Comment: It is called adjusting decisions to anticipated profit.]

Return of King Coal?

Model of Failure: Why the European Union Emissions Trading System is an Unsustainable Path for Australia and other nations

By Frank Clemente, Energy Facts Weekly, Aug 22, 2013

<http://us1.campaign-archive2.com/?u=29bc7d5d85828d574f86c157a&id=27601f367a&e=>

Powering Europe's Digital Growth: Arctic Water & U.S. Coal

By Mark Mills, Energy Facts, Aug 19, 2013

<http://us1.campaign-archive1.com/?u=29bc7d5d85828d574f86c157a&id=8f9c722a44&e=>

Nuclear Energy and Fears

A Nuclear Reactor Competitive with Natural Gas

General Atomics has applied for DOE funds to commercialize a nuclear reactor that could lower electricity costs by 40 percent. [H/t Toshio Fujita]

By Kevin Bullis, MIT Technology Review, Aug 19, 2013

<http://www.technologyreview.com/news/518116/a-nuclear-reactor-competitive-with-natural-gas/>

Japan's nuclear crisis deepens, China expresses 'shock'

By Kiyoshi Takenaka and James Topham, Reuters, Aug 21, 2013

<http://www.reuters.com/article/2013/08/21/us-japan-fukushima-severity-idUSBRE97K02B20130821>

Alternative, Green (“Clean”) Solar and Wind

New rechargeable flow battery enables cheaper, large-scale energy storage

Design may support widespread use of solar and wind energy.

By Jennifer Chu, MIT News, Aug 16, 2013 [H/t Toshio Fujita]

<http://web.mit.edu/newsoffice/2013/rechargeable-flow-battery-enables-cheaper-large-scale-energy-storage-0816.html>

Wind Turbine Giant Hits Turbulence

By Walter Russell Mead, Via Meadia, Aug 22, 2013 [H/t GWPF]

<http://blogs.the-american-interest.com/wrm/2013/08/22/wind-turbine-giant-hits-turbulence/>

You can fire as many chief officers as you’d like, but until the technology improves, the future won’t look any brighter than the fairly grim present.

Alternative, Green (“Clean”) Energy -- Other

US Interior Department Announcement Will Help To Advance Geothermal

By Staff Writers, Washington DC (SPX), Aug 20, 2013

http://www.solardaily.com/reports/US_Interior_Department_Announcement_Will_Help_To_Advance_Geothermal_999.html

[SEPP Comment: According to the EIA, of the dispatchable sources of power, Geothermal has a levelized cost greater than combined cycle natural gas, but less than advanced nuclear. Now can we make it work? Of course, no word on improving access to Federally controlled lands for development of oil and gas.]

An Inexpensive Fuel-Cell Generator

A startup says its technical advances could make fuel cells as cheap as grid power.

By Kevin Bullis, MIT Technology Review, Aug 22, 2013

http://www.technologyreview.com/news/518516/an-inexpensive-fuel-cell-generator/?utm_campaign=newsletters&utm_source=newsletter-daily-all&utm_medium=email&utm_content=20130822

Health, Energy, and Climate

Infectious diseases and climate change intersect with no simple answers

By Staff Writers, Washington DC (SPX), Aug 19, 2013

http://www.terraily.com/reports/Infectious_diseases_and_climate_change_intersect_with_no_simple_answers_999.html

Too Damn Sure: The Epidemiologist Fallacy

By William Briggs, His Blog, Aug 21, 2013

<http://wmbriggs.com/blog/?p=8108>

[SEPP Comment: Includes a few examples where extremely poor statistics are being used to justify regulations under Clean Air Acts.]

Oh Mann!

Hockey graph was faulty science

By Christopher Monckton, Richmond Times-Dispatch, Aug 20, 2013

http://www.timesdispatch.com/opinion/letters-to-the-editor-for-august/article_ad566233-a19f-5ca4-b802-e5e7adabe554.html

IPCC throws Mann's Hockey Stick under the bus?

By Anthony Watts, WUWT, Aug 21, 2013

<http://wattsupwiththat.com/2013/08/21/ipcc-throws-manns-hockey-stick-under-the-bus/>

[SEPP Comment: Montford also points out that the leaked text implies the Medieval Warm Period was warmer than today.]

Environmental Industry

Greens press EPA to revoke 'outdated' emissions exemption

By Zack Colman, The Hill, Aug 19, 2013

<http://thehill.com/blogs/e2-wire/e2-wire/317681-green-groups-press-epa-to-revoke-outdated-emissions-exemption->

[SEPP Comment: Punishing the power sources that provide the back-up for unreliable solar and wind.]

Top 10 jumbo foundation grants fund Big Green

By Ron Arnold, Washington Examiner, Aug 15, 2013

<http://washingtonexaminer.com/top-10-jumbo-foundation-grants-fund-big-green/article/2534312>

50-year-old fracking site that makes a mockery of the Balcombe zealots:

It's next to a nature reserve - and has fracked enough gas and oil to power 21,000 homes every day... with no complaints from locals

There has been fracking near Beckingham Marshes since 1963

The site employs 35 people and pumps 300 barrels of oil a day

Locals say there have been no environmental problems from the site

By Adam Lusher and Wayne Francis, Mail, UK, Aug 17, 2013 [H/t GWPF]

<http://www.dailymail.co.uk/news/article-2396378/50-year-old-fracking-site-makes-mockery-Balcombe-zealots-Its-nature-reserve--fracked-gas-oil-power-21-000-homes-day--complaints-locals.html>

Drilling set to resume at fracking site as protesters quit site: Three more arrested but numbers dwindle

Police make targeted arrests after reviewing CCTV from Monday's protest

Eight riot-trained officers arrest female suspect on suspicion of assault

Protesters say they will move on to sites where drilling is being considered

Caudrilla planning to resume drilling by the end of the week

By Ryan Kisiel, Mail, UK, Aug 21, 2013 [H/t GWPF]

<http://www.dailymail.co.uk/news/article-2398585/Fracking-Drilling-set-resume-site-protesters-quit.html>

Other Scientific News

A Discussion With Astronaut Bonnie Dunbar: Re-Engineering America's Space Leadership

By Larry Bell, Forbes, Aug 20, 2013

<http://www.forbes.com/sites/larrybell/2013/08/20/a-discussion-with-astronaut-bonnie-dunbar-re-engineering-americas-space-leadership/>

Improving Understanding of Snowball Earth

By Nola Taylor Redd for Astrobiology Magazine, Moffet Field CA (SPX), Aug 19, 2013
http://www.terradaily.com/reports/Improving_Understanding_of_Snowball_Earth_999.html
[SEPP Comment: Thankful for global warming.]

Other News that May Be of Interest

The world's future tallest skyscrapers: who will be first to break the 1,000-meter mark?

By Staff Writers, Hamburg, Germany (SPX), Aug 22, 2013
http://www.spacemart.com/reports/The_worlds_future_tallest_skyscrapers_who_will_be_first_to_break_the_1000_meter_mark_999.html

[SEPP Comment: It will not be in Europe or North America.]

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BELOW THE BOTTOM LINE:

Al Gore makes a Category 6 level blunder

By Anthony Watts, WUWT, Aug 22, 2013
<http://wattsupwiththat.com/2013/08/22/gore-makes-a-category-6-level-blunder/>

Link to interview: Gore Optimistic About Stopping Global Warming

By Ezra Klein, Washington Post, Aug 22, 2013
http://www.realclearpolitics.com/2013/08/22/gore_optimistic_about_stopping_global_warming_314112.html

[SEPP Comment: Apparently the neither the reporter nor Nobel Peace Prize recipient Al Gore are aware that change in the physical state of H2O requires energy or gives off energy.]

Beetles modify emissions of greenhouse gases from cow pats

By Eleanor Slade, EurekaAlert, Aug 22, 2013 [H/t WUWT]
http://www.eurekaalert.org/pub_releases/2013-08/uoh-bme082213.php

Friday Funny: Fracking protestors and their petro-sourced belongings

By Anthony Watts, WUWT, Aug 23, 2013
<http://wattsupwiththat.com/2013/08/23/friday-funny-fracking-protestors-and-their-petro-sourced-belongings/>

[SEPP Comment: Reminds one of those who emotionally declare their demands to preserve the precious Arctic without ever having spent a winter there without modern equipment. Several days without electricity and modern equipment gets very cold and boring, not to speak of months.]

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ARTICLES:

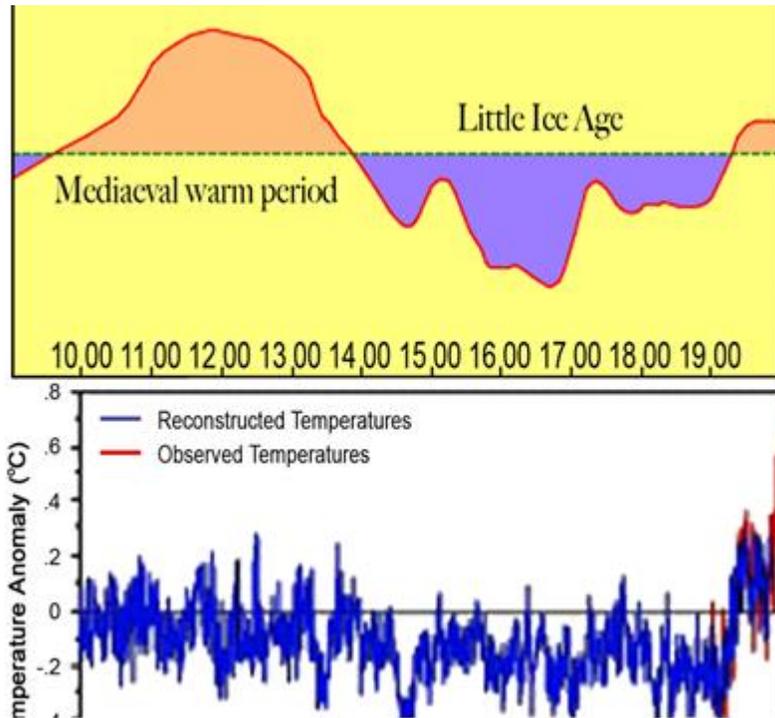
1. A Tale of Two Climate HockeySticks

By S. Fred Singer, American Thinker, Aug 20, 2013
http://www.americanthinker.com/2013/08/a_tale_of_two_climate_hockeysticks.html

The false "hockeystick" graph with which (in 2001) the UN climate panel claimed that current surface temperatures are "unprecedented" in a millennium is at odds with hundreds of scientific papers and with their own previous position. There is nothing unusual about today's temperatures; the world was warmer in the Middle Ages. However, the "hockeystick" graph showing a rapid increase in 20th century CO₂ concentration is genuine.

The Third Assessment Report (2001) of the UN-sponsored IPCC (Intergovernmental Panel on Climate Change) espouses a temperature history over the last thousand years that resembles a 'hockeystick' (HS). The 'shank' is the smooth decline of temperature from 1000 to 1900AD, followed by an apparent sharp rise in the 20th century (forming the 'blade' of a

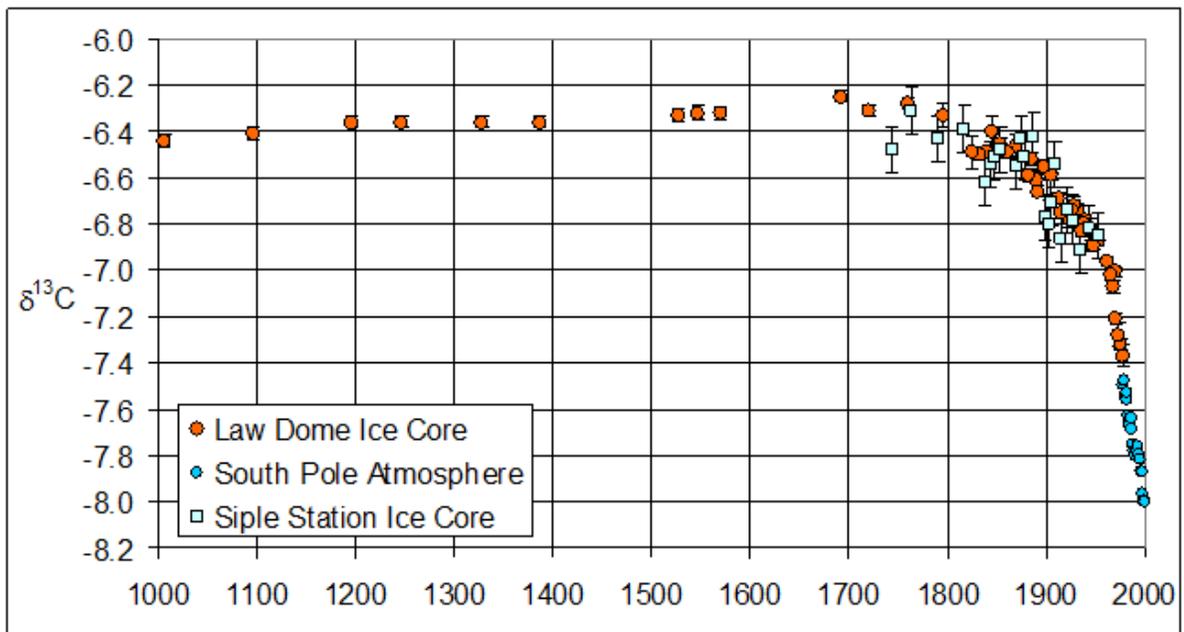
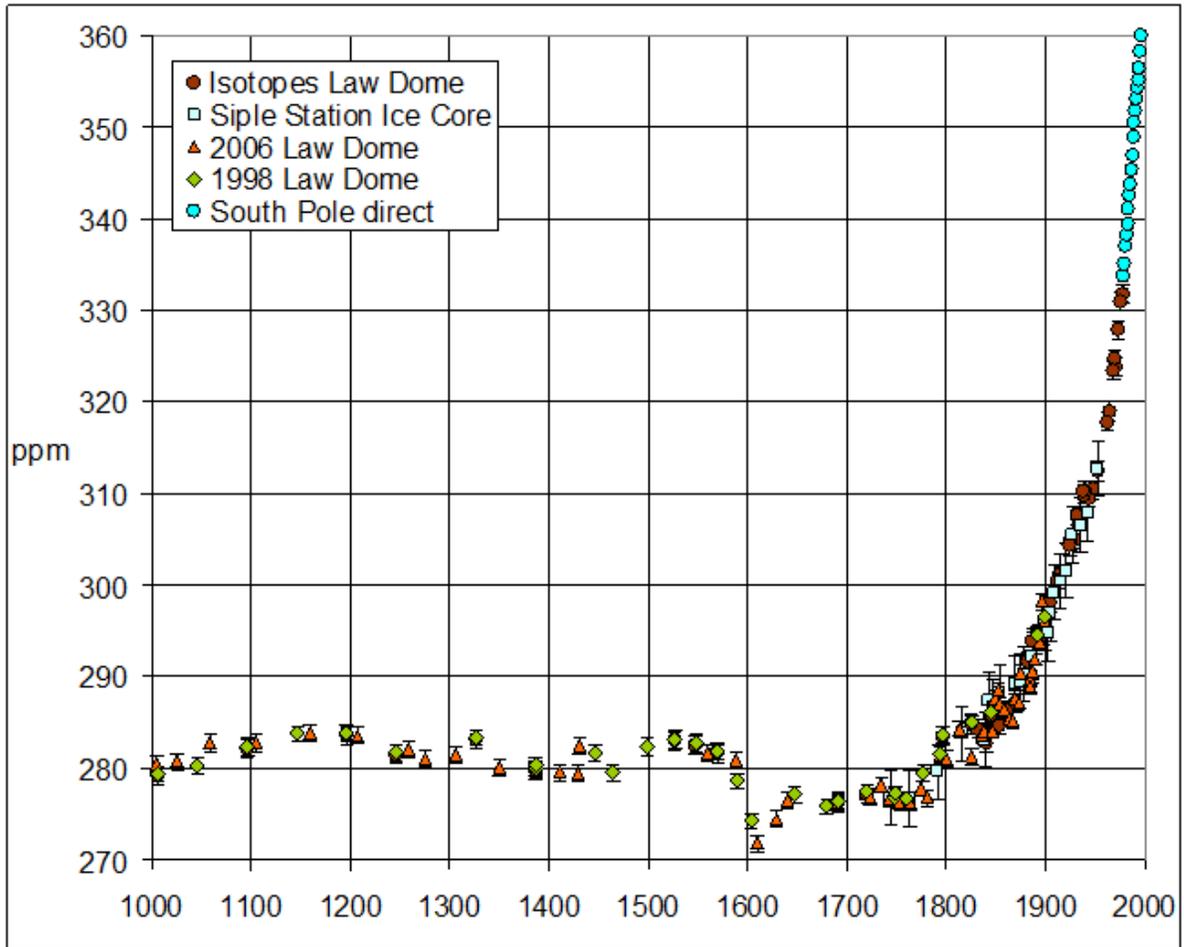
hockeystick). IPCC-AR3 promoted this rise as definitive evidence of human influence on climate; emission of carbon dioxide was supposed to cause the 20th century warming. But this temperature history is fake; it is contradicted by much other evidence.



Top figure from IPCC-AR1 (1990) Bottom figure from IPCC-AR3 (2001) - does away with MWP and LIA

By "fake" I mean it is 'not real.' Please note that I do not use the term "faked." I prefer to believe that Dr. Michael Mann, creator of the hockeystick, simply made several scientific errors when he derived this notorious graph of global surface temperature from his analysis of 'proxy' data (tree rings, corals, lake sediments, etc) of the past millennium. Canadian scientists Steven McIntyre and Ross McKittrick, as well as statistics expert Edward Wegman (of George Mason University in Virginia), demonstrated that Mann's data and statistical methods are both faulty; yet he has not withdrawn his HS paper -- though *Nature* was compelled to publish a belated and inadequate Corrigendum by Mann. Quietly however, he has co-published temperature graphs that show a distinct Medieval Warm Period (MWP) 1000 years ago and a Little Ice Age (LIA), mostly around 1400-1800 AD.

1000 years of atmospheric CO2 and isotopic composition at the South Pole



Note the Little Ice Age and the Medieval Warm Period in the CO₂ record (top graph). There is a slight peaking (maximum delta C-13) in the isotopic composition at the Little Ice Age (bottom graph), where presumably CO₂ absorption by ocean would be enhanced.

Carbon dioxide data, mainly from sampling Antarctic ice cores over the last thousand years, also show a shape that (superficially) resembles a hockeystick; but this one is real. Yet there is no relation between the two graphs -- or between temperature and carbon dioxide -- as the following discussion will show. I fear that my comparison of the two graphs may cause great unhappiness for extreme alarmists as well as for extreme skeptics of global warming.

The Temperature Record

If one looks at the best temperature data over the last thousand years, they overwhelmingly support the existence of an oscillation on a time scale of 1000-1500 years -- with a temperature maximum, the Medieval Warm Period (MWP), followed by the well documented Little Ice Age (LIA). These temperature swings are missing from Mann's HS graph -- which the IPCC unwisely featured, six times, in its 3rd Assessment Report of 2001. It is telling that IPCC's 4th Report of 2007 and the forthcoming 5th Report no longer display the hockeystick-curve of Michael Mann.

A more detailed examination of thermometer data of the 20th century shows a major warming between 1910 and 1940, a slight cooling between 1940 and 1975, and a disputed temperature history of the last two decades of the century. It is interesting and worth noting that Mann's HS graph stops just before 1980 -- even though the use of proxy data would indicate an absence of warming from 1980 to 2000. The leaked 'Climategate' e-mails between IPCC scientists, including Mann himself, suggest that "hiding the decline" in tree-ring temperature reconstructions, which should have been showing the same warming as the thermometers, was the reason why Mann stopped his analysis in 1980 -- and why his post-1980 proxy temperatures have never been revealed.

(An email from Professor Phil Jones at the University of East Anglia to Mann and his co-authors said: "I've just completed Mike's [Mann] *Nature* trick [sic] of adding in the real temps to each series for the last 20 years (i.e. from 1981 onwards) and from 1961 for Keith's [Briffa] to hide the decline.")

The CO₂ Record since 1000AD

Turning now to the CO₂ data (assembled by Tom Quirk in Australia and kindly transmitted by Prof. Will Happer of Princeton Univ.): They show a remarkable hockeystick shape -- which, however, is real. The concentrations of atmospheric CO₂ were preserved in air bubbles trapped in snow that turned into ice; the time record has been obtained from different samplings of Antarctic ice cores. It is supplemented and confirmed by a corresponding decrease in the isotope ratio of C-13/C-12. The sharp decrease of C-13 in the 20th century indicates that its source is most likely biogenic; fossil fuels from ancient plant material and biota would fit this specification.

1. A quick look at the CO₂ curve shows a slight increase during the MWP and a slight decrease during the LIA. These excursions are readily interpreted as a (net) reduced uptake of CO₂ when the ocean is warm and increased uptake when the ocean is cold. [We recall that roughly half of the CO₂ emitted into the atmosphere during fossil-fuel burning and cement manufacture is absorbed into the ocean and that CO₂ solubility depends inversely on ocean temperature -- the well-known 'champagne effect'].

A more detailed interpretation of the CO₂ curve leads to these additional conclusions:

2. Various skeptics have suggested that CO₂ levels were higher during the 19th century than they are today. There is nothing wrong *per se* with these old measurements -- though they were performed by old-fashioned chemical methods rather than current infrared techniques. It just

means that the data obtained were contaminated and were not representative of global concentrations of free-atmosphere CO₂. Antarctic is reasonably free of contamination.

3. It is often claimed by skeptics that the human contribution to atmospheric CO₂ (from fossil-fuel burning) is tiny -- less than a percent. The data clearly show that the contribution is 400 minus 280 parts per million (ppm) -- roughly 30% of the current concentration.
4. Extreme skeptics have often claimed that George Callender, the British pioneer of the global-warming story during the early 20th century, was hiding some higher CO₂ values from ice cores that approached present values. This does not seem to be the case.
5. From time to time, skeptics have claimed that the CO₂ increase was mainly due to global warming, which caused the release of dissolved CO₂ from the ocean surface into the atmosphere. (A recent adherent of this hypothesis is Prof. Murry Salby in Australia.) However, the evidence appears to go against such an inverted causal relation. While this process may have been true during the ice ages, the isotope evidence seems to indicate that the human contribution from fossil-fuel burning clearly dominates during the last 100 years.
6. Finally, note that the temperature 'blade' starts around 1910, while CO₂ starts its sharp upward climb around 1780AD.

Conclusion

Upon reflection on these temperature and CO₂ data of the last thousand years, I conclude that the evidence presented here will cause unhappiness for both extreme alarmists and extreme skeptics. Maybe that's a good thing.

However, it still leaves open the question of climate sensitivity (CS), i.e., the actual influence of CO₂ on global temperature. CS has been steadily decreasing, from 3°C (for CO₂ doubling) in the initial IPCC report. I believe confidently that the real CS values may be much lower -- although not quite zero. I base it on what Dr. Rajendra Pachauri, chairman of the IPCC, has delicately called the 17-year "pause" in global warming of the near-surface, and on the near-absence of tropical atmospheric warming, as seen by weather satellites since 1978.

The scientific puzzle is why IPCC climate models predict large values for CS while the observations only show only small ones.

2 'Perverse Effects'

How green subsidies often increase carbon emissions.

Editorial, WSJ, Aug 19, 2013 [H/t William Readdy]

<http://online.wsj.com/article/SB10001424127887324783204578621631632912450?mg=reno64-wsj.html?dsk=y>

Anti-carbon central planning was bound to distort markets, but it turns out that the planners often increase emissions as they try to engineer President Obama's "new energy economy." So concludes the National Academies, whose major report on energy subsidies deserves more attention than it has received since its June release.

By some miracle, Congress in 2008 created a National Research Council special committee to comb the tax code to figure out how specific provisions increase or decrease greenhouse gases. As chairman William Nordhaus of Yale and his colleagues note, there is very little empirical literature on these programs. What they did learn is that "several existing provisions have perverse effects, while others yield little reduction in greenhouse gas emissions per dollar of revenue loss."

Take ethanol and other biofuel subsidies, which the committee calls a "most striking" example. The 45-cents-a-gallon ethanol tax credit expired in 2012, but before it died it was increasing carbon emissions by five million tons every year, at a cost of \$5.26 billion. As they say, it's not easy being green.

The ethanol credit grew over decades into the single largest U.S. energy tax expenditure, yet five million tons is nothing on a world scale, roughly 0.1% of U.S. emissions. The committee shows that the subsidy was economically equivalent to a taxpayer-funded coupon at the pump, slightly lowering the price of blended fuels. As gas became artificially cheaper, consumers naturally used more of it. While the ethanol credit expired, the ethanol purchase mandate still survives.

Other tax provisions are more useless than harmful by the green lobby's anti-carbon standards. The renewable electricity tax credit for wind and solar will reduce emissions by roughly all of 0.3% by 2035, which is still minuscule globally.

The panel also tried to study tax credits for home energy efficiency improvements, but these programs "resisted analysis" because they are so complicated, which is a running theme in the report. One of the committee's main conclusions is that "the best existing analytical tools are unable to determine in a reliable fashion the impact of some important subsidies."

Ponder that one: The roughly \$24 billion that the U.S. spends annually on energy subsidies is so complex that its impact can't be understood by America's top scientists and economists.

The committee recommends that Congress abandon the "poor tool" of subsidies and instead create a market price for carbon through a direct tax or cap and trade. Yet those would raise prices for consumers and hurt economic growth—and considering how Congress has designed its existing subsidy programs, both would likely have other "perverse effects" on carbon as well. Better simply to end the subsidies.

3. Race for Resources: Warm to Investors, Greenland Opens Up

Prospectors Develop Projects to Mine Potential Bounty in Minerals

By James Areddy, WSJ, Aug 22, 2013

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ILULIALIK FIORD, Greenland—Geologists have long known that deep beneath the forbidding ice of this Arctic island lay buried treasure.

Below hundreds of feet of frozen water and ground, iron, copper, nickel, zinc, rare-earth minerals and rubies beckon. Oil and gas may sit offshore.

Fortune hunters taste opportunity. Prospectors from various countries, encouraged by Greenland's investment-friendly policies, have spent over \$1.7 billion developing potential projects. A British company is going for iron ore. Scots are testing for undersea oil. Australians are pursuing rare earths. Canadians are digging for rubies, while giant Chinese mining and engineering concerns are jockeying for position.

Geologists say Greenland potentially holds stores of iron, copper, nickel, zinc, rare-earth minerals, rubies, oil and gas. Above, the capital Nuuk.

Recent annual thaws make it possible for the Danish territory to contemplate exploiting these riches, even though the 56,000 people who live on the world's biggest island lack the means to build the ports, roads and power plants required to transform the fishing-based economy into a mining one.

Greenland's geologists had found many resources on the largely pristine island but never much pursued mining. Then, in 2009 Denmark freed the island to largely govern itself, permitting locals to decide how best to use the land. Greenland's ethnic Inuit welcomed mineral and petroleum investors as new patrons.

The islanders say they desire full independence but that it won't be possible until they achieve economic self-sufficiency from Denmark, which still provides hundreds of millions of dollars in annual support and basic services like policing.

One mine could fundamentally alter Greenland's \$2 billion economy. Locals shudder at the alternative: continued dependence on seafood for almost 90% of the island's export earnings and handouts from Denmark worth over a third of the annual budget.

"It's quite a dynamic point in Greenland's history, politically, economically and culturally," says John Mair, executive director of a rare earth and uranium exploration company, Greenland Minerals and Energy Ltd.

Led mainly by small Australian and Canadian companies, mining groups are currently exploring more than 100 projects. Small-time prospectors typically pave the way into untested markets like Greenland, documenting what is in the ground and forecasting the costs of removing it, in hopes of attracting deep-pocketed backers.

"Mining will come to Greenland," newly elected Prime Minister Aleqa Hammond declared in a recent interview with *The Wall Street Journal*.

Because China is the biggest importer of many natural resources, its companies factor into plans for many Greenland proposals, including as customers, according to interviews with dozens of executives and government officials.

In fact, this icy frontier's future may depend significantly on China's bankers, engineers, builders and buyers—and their government's determination to win influence at the top of the world.

Asked about China's role, Mrs. Hammond said "it's important Greenland allies with countries that have an interest in funding projects," and which ones don't matter. "We will not only be needing funds from outside," she said, "we will also be needing hands from outside."

Thus far, a fair share of deals-in-the-making hinge on China as a catalyst. One ore project, run by Britain's London Mining LOND.LN -3.39% PLC, envisages taking advantage of new Greenland regulations designed to permit large-scale foreign employment by bringing in Chinese workers. In mid-July, Australia's Ironbark Zinc PLC said it is working with a Chinese company that might finance, build and patronize a \$485 million base metals mine it proposes in northern Greenland. A

week earlier, a delegation of Chinese miners and bankers visited Greenland's president and local prospectors. Officials at Canadian firm True North Gems Inc. TGX.V -7.14% say the group was enthusiastic about potential investment in its plan to excavate rubies, red stones that are especially popular in China and India.

Substantial Chinese economic inroads could redraw Greenland's political landscape. Historically, the island leaned toward the U.S. Relations built on American demand for a mineral called cryolite, once important to aluminum production, led to U.S. construction of ports and airstrips, and today Greenland hosts the northernmost U.S. military facility, Thule Air Base.

While Denmark officially welcomes these suitors, diplomats say a significant economic tilt toward China would discomfort Denmark and its ally, the U.S. The latest annual Danish Defense Intelligence Service risk assessment highlights Chinese interest in Greenlandic mining projects in saying, "Both the United States and Russia are highly skeptical of Chinese attempts at securing control over the region's natural resources."

When President Barack Obama in May signed a new U.S. Arctic strategy, he emphasized seizing "emerging economic opportunities." The 13-page policy lacks specifics, though in a paragraph about U.S. security interests, it makes a pointed distinction between the ambition of nations like the U.S., which have territory in the region, and so-called non-Arctic states. The distinction comes as Chinese publications increasingly refer to the Asian country as a "near-Arctic state," according to analysts.

Beijing, meanwhile, is sensitive to suggestions it harbors hidden agendas for the island. "Groundless hype," a Chinese foreign ministry spokeswoman scoffed in March.

In fact, Chinese fingerprints in Greenland can be hard to find. There's not even a Chinese restaurant in the island's main town.

Western miners own nearly all exploration licenses for Greenland. But amid sagging mineral prices and with capital in short supply, many say they are negotiating shareholding and funding deals in China. "The risk-willing money is in Asia," says Jens-Erik Kirkegaard, Greenland's industry and minerals minister.

Evidence of the mining ambition—and China's importance—is visible four hours by speedboat into Ilulialik Fiord. Here, house-size icebergs crash off a glacier into the ocean, tinting green the deep waters that teem with whales and seals.

On an incline above a bay still frozen in late spring, shipping containers break the vista—the unlikely staging-point for an iron ore mine, and possible Arctic foothold for China.

The shipping containers on the hilltop are the prep-station for a proposed \$2.35 billion iron ore mine that Greenlandic officials indicate they will license by autumn. The project is owned by Britain's London Mining but was designed by an international team with prominent roles for Chinese government-run companies.

Mining iron ore above the fiord is a potential budget-buster, starting with plans to dynamite a plaster of ice 550-feet thick. Up to 3,000 Chinese laborers will endure raging winds and subzero temperatures to construct power and processing plants. A pipeline will snake 64 miles down the

mountain to a new port. Ships loaded with ore would navigate to China, possibly on an increasingly viable summertime voyage that cuts near the North Pole and reduces Europe-China travel time by 40%.

"We recognize that it is a door-opening project for Greenland," says Graeme Hossie, chief executive officer of London Mining. "One needs to put together a lot of aligned interests to make it work."

Few "mineral hypermarkets," enthusiasts say, can rival Greenland in good governance—its Danish-standard political stability, predictable legal system and minimal corruption.

But bonanzas on frozen islands—"Ice Cold Gold," as one television show calls Greenland—also pose extraordinary risks.

"Opportunities are many but you also have to be realistic," says Arent Heilmann, a partner in Greenland Mining Services A/S, an adviser and supplier to several exploration projects. "The challenge here in Greenland is there is no infrastructure outside the towns."

Greenland is triple the size of Texas. But its population wouldn't fill Cowboys Stadium.

No roads link Greenland's isolated coastal hamlets. The airstrip in the capital Nuuk is too short to land Air Greenland's single jetliner. The Internet fails when icebergs snag its undersea cables.

Almost 30% of Greenlanders reside in compact Nuuk. Folks dress in bristly sealskin jackets, snack on rubbery whale fat seasoned with allspice and rush to the dance floor when accordionists strike up polka-sounding Greenland hits. A favorite is "Hvalen Hvalborg," a Danish ode to a whale.

Inuit often live in modern apartments featuring triple-paned windows and pastel exteriors. It is pricy to live here: a six-pack of beer is \$18; five minutes of YouTube cost \$1; a 45-minute domestic flight often tops \$500.

Professionals are in short supply, including translators of Greenlandic, a language of multisyllabic words that can encapsulate an entire sentence in other tongues. To punctuate, you gasp.

Out where Greenland's resources are, challenges multiply so fast some doubt mining will ever be worth the risk. Miners pay \$3,200 an hour for helicopters, ride boats in waters so cold that few bother with life jackets and haul equipment by dog sled. To keep equipment from freezing, drillers pour cocktails of salt and hot water into deep bore holes and never turn off their machines. On the ore site, huge sandbags anchor the containers against gales.

And yet tough jobs are increasingly getting done in the Arctic. For a new \$180 million hydropower plant distant from the Greenland fishing town Ilulissat, 150 workers built a supply port and roads, tunneled almost 9 miles below a frozen lake and stretched transmission lines 30 miles. "Over mountains, over fiords, over lakes, over everything," says Henrik Estrup, chief executive officer of the utility, Nukissiorfiit.

New York-based Alcoa Inc. AA +2.37% has made preliminary investments toward an aluminum smelter that would rely on Greenlandic lakes for hydroelectricity and be built by Chinese workers.

More immediately, 46 cargo vessels sailed the Northern Sea Route during the annual thaw in 2012, and Norway's Centre for High North Logistics counts more this season preparing to make the shortest voyage between Europe and Asia.

A new era looks apparent to Johannes Heilmann, a grizzled 65-year-old nicknamed Akappiaq. He hunts birds in the winter, harvests lumpfish roe in spring, catches cod and seal through the summer and harpoons fin whales until December. He suspects few after him will carve out a living with a rifle and a skiff. Greenland, he says, is "changing from a fishing nation to a mining nation."

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